

# **North Africa – Mediterranean Opportunities in the gas market**

**20<sup>th</sup> World Energy Congress – Rome 2007**

Joint presentation Sonatrach – Enel

Rome, November 2007

# Agenda

PRELIMINARY

1. **Company profiles**
2. Mediterranean gas market and future development
3. Potential constrains
4. NOCs and utilities role

# SONATRACH- Highlights of the year 2005

PRELIMINARY

## Results

- Revenues at €35.36 bn
- EBITDA at €20.84 bn
- Net result at €5.75 bn
- Net debt at €0.52 bn
- Headcount: 54 164 people

## 2005/2004

- + 44%
- + 48%
- + 69%
- - 69%
- + 1%

# Sonatrach's assets

PRELIMINARY

- *Strategic position*
- *Large hydrocarbons reserves*
- *Sizable networks (more than 16.500Km pipelines)*
- *Solid financial situation*
- *Excellent and durable relationships with foreign partners*

# Algeria: strategic geographic location

PRELIMINARY

African, Arab and  
Mediterranean  
crossroad



Close to main Mediterranean markets  
(Spain, France, Italy, Greece, Turkey, Lebanon...)

# Sonatrach's targets

PRELIMINARY

## GAS EXPORT TARGETS:

85 bcm from 2010 and 100 bcm from 2025 by

- *Developing gas reserves in Algeria and entering international upstream*
- *Putting in place new schemes of integrated development*
- *Reinforcing pipeline export capacity*
- *Securing the access to LNG markets*
- *Entering the gas downstream and being present in each phase of the gas value chain (transportation, storage, power generation, etc....).*

# ENEL - Highlights of the year 2005

PRELIMINARY

## Results

## 2005/2004

- |   |           |
|---|-----------|
| • Revenues at €34 bn                      | • +9.8%   |
| • EBITDA at €7.7 bn                       | • +10.6%  |
| • Net result at €4 bn                     | • +48.0%  |
| • Net debt at €12.3 bn                    | • - 49,8% |
| • Headcount: 48.180 people <sup>(1)</sup> | • -5,1%   |

**Excellent performance on key indicators**

# Enel in the Italian electricity sector

## GENERATION

**42,047 MW**



- 26,837 MW Thermal
- 14,318 MW Hydroelectric
- 642 MW Geothermal
- 250 MW Wind and other renewable



## DISTRIBUTION

**82% of the total electricity distributed in Italy**



## SUPPLY

**nearly 30 million customers.**



**DEFINITIVE**

*Data as of December 31st 2004*



# International assets

**PRELIMINARY**

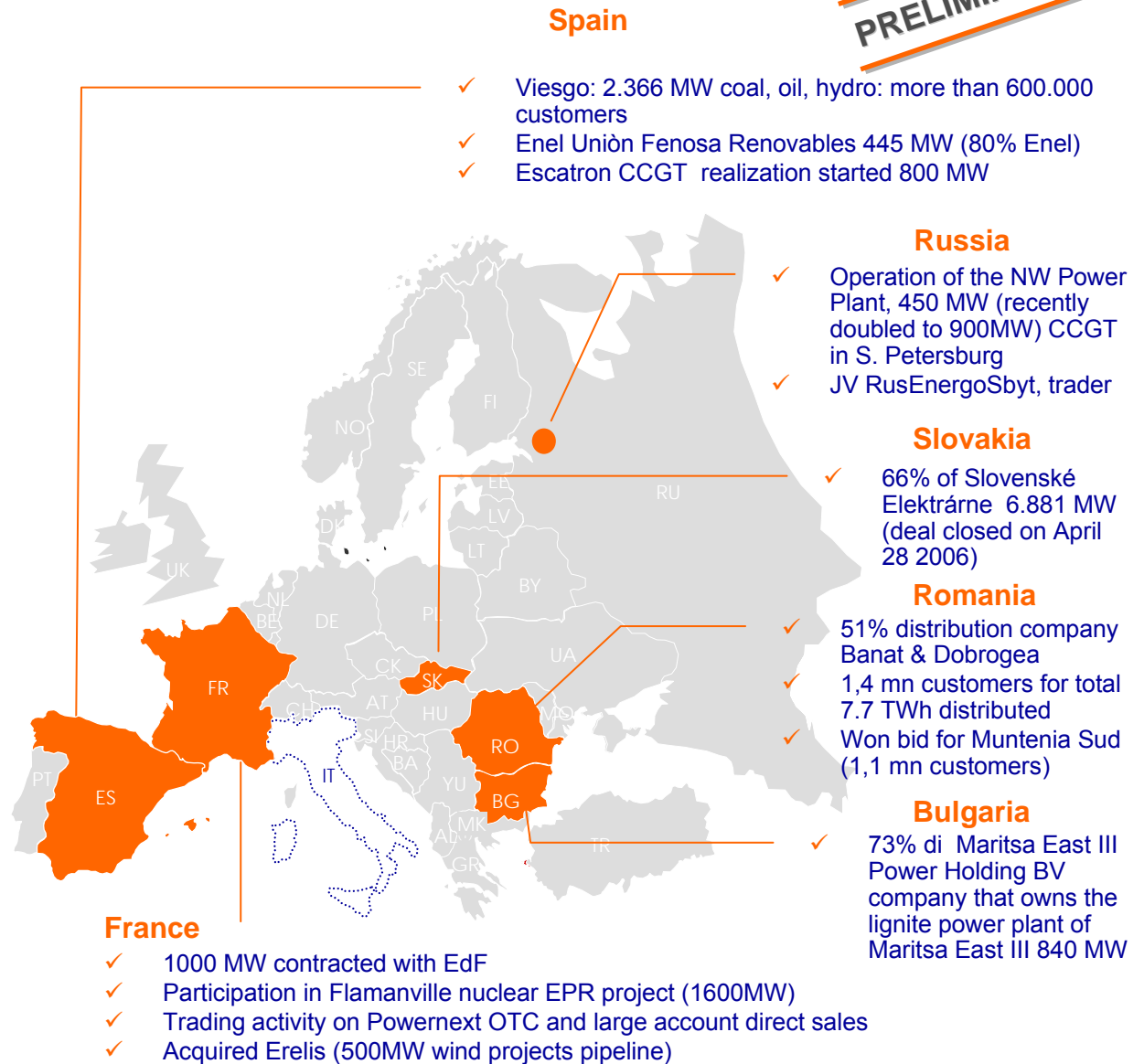
## Enel North America

- ✓ 410 MW Hydro, wind and other renewable in US (and Canada)



## Enel Latin America

- ✓ More than 200 MW hydro, geo and wind in central America and Chile
- ✓ Entered in Panama with Fortuna acquisition (300 MW, 30% of country production)
- ✓ El Salvador [Geo]: 12,5% (growing) participation in LAGEO



# Agenda

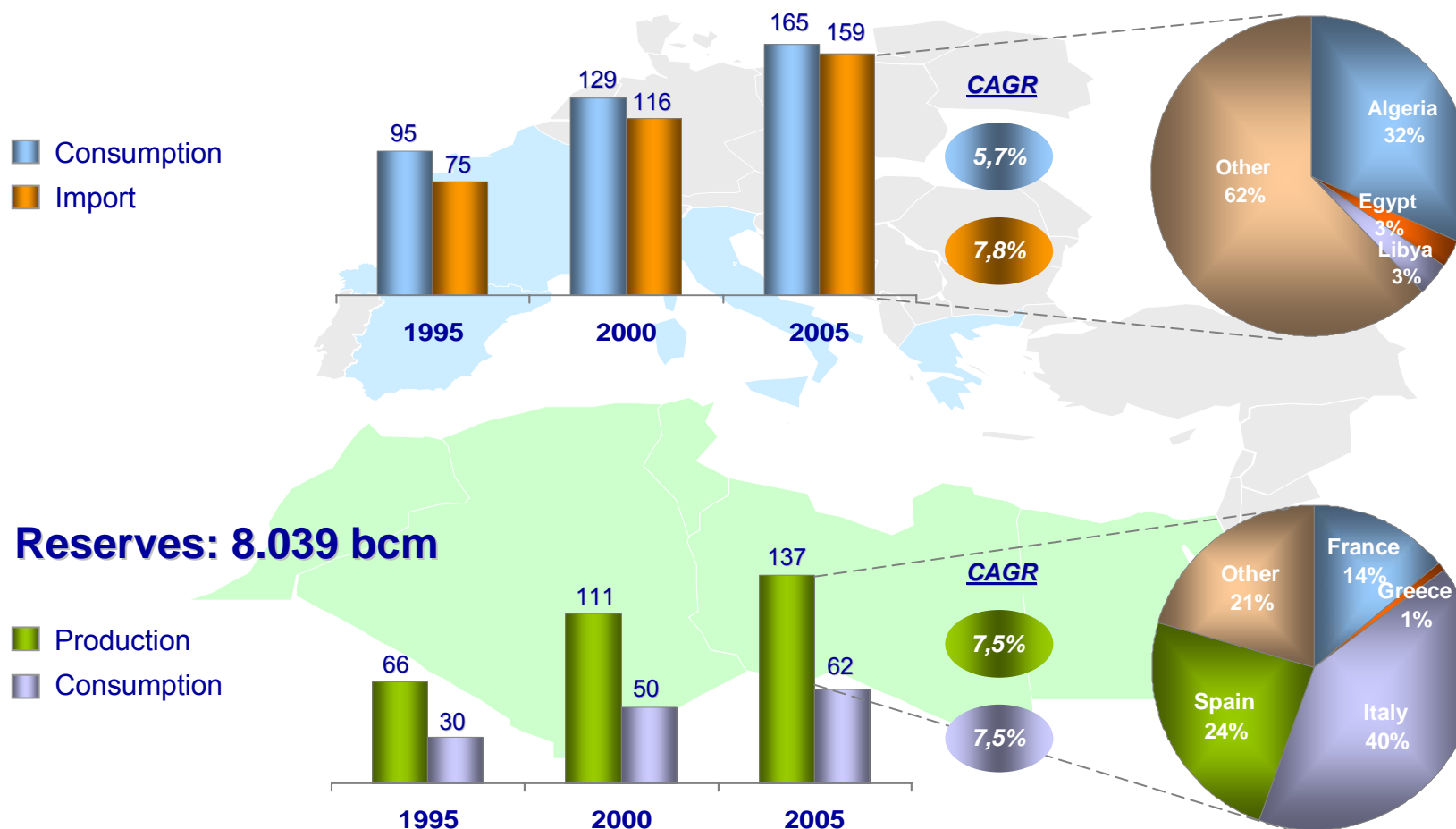
PRELIMINARY

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# Mediterranean gas market overview

PRELIMINARY

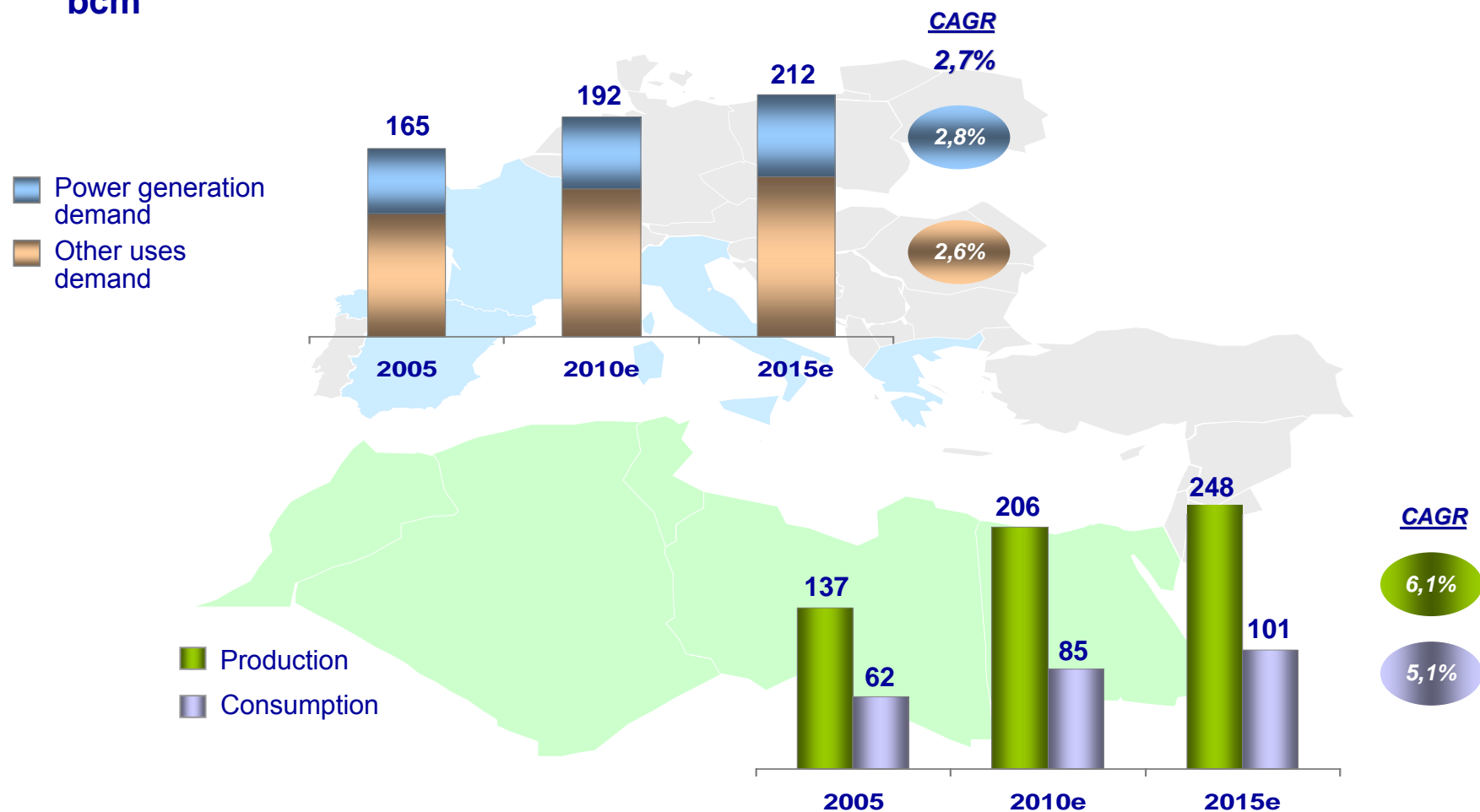
bcm



# Mediterranean gas market outlook

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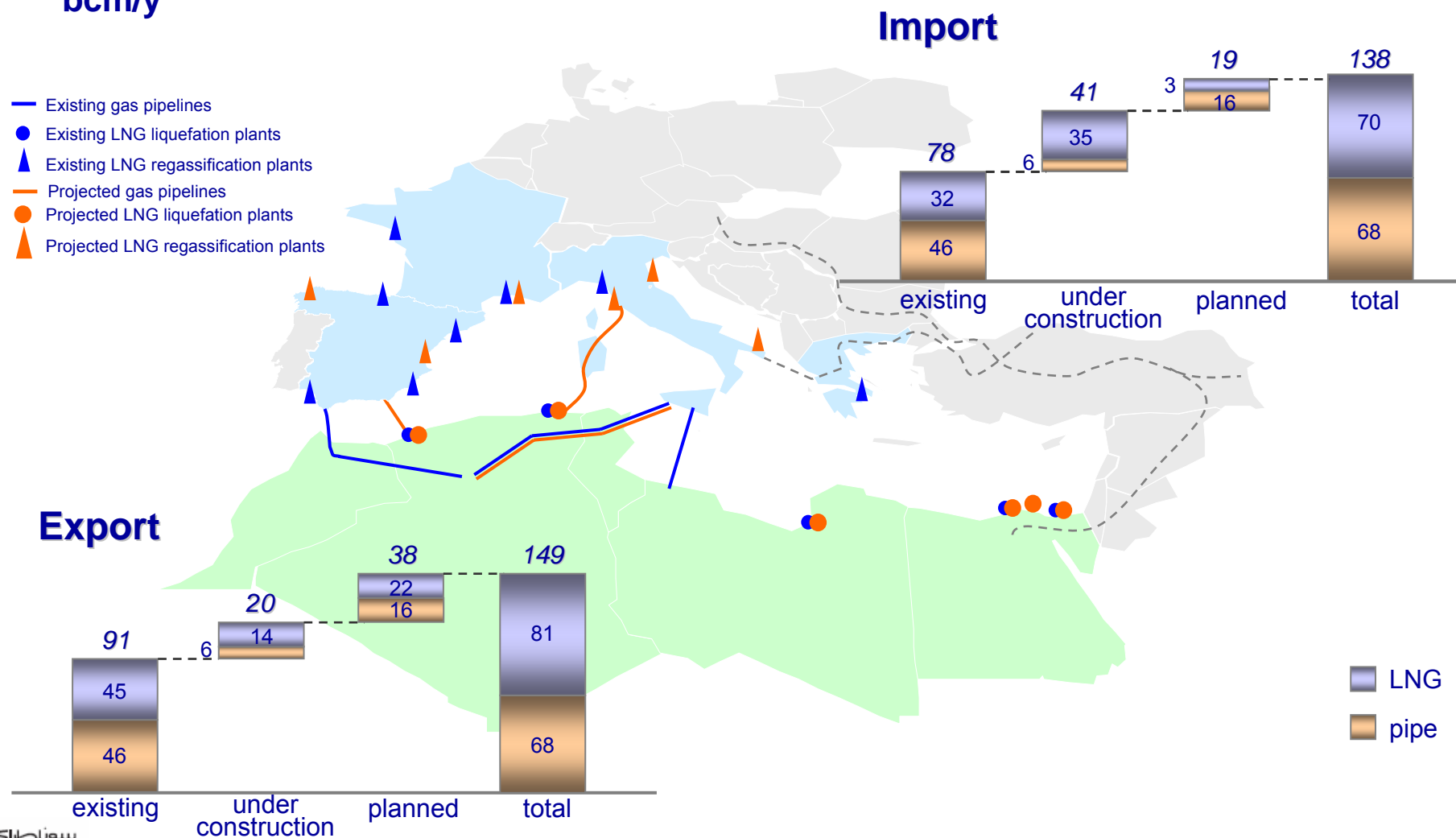
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# Mediterranean import-export infrastructures

PRELIMINARY

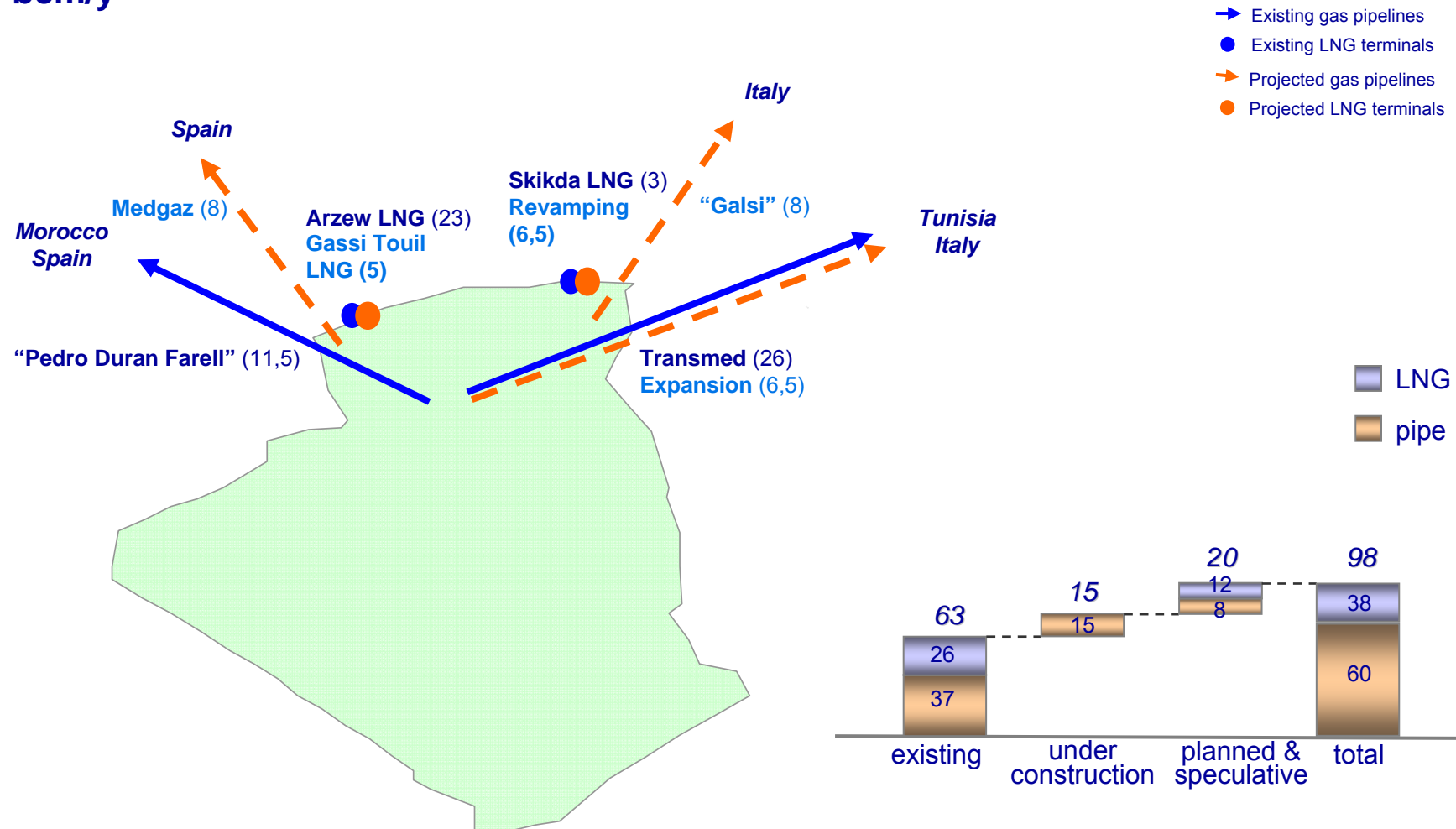
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# Algerian export capacity

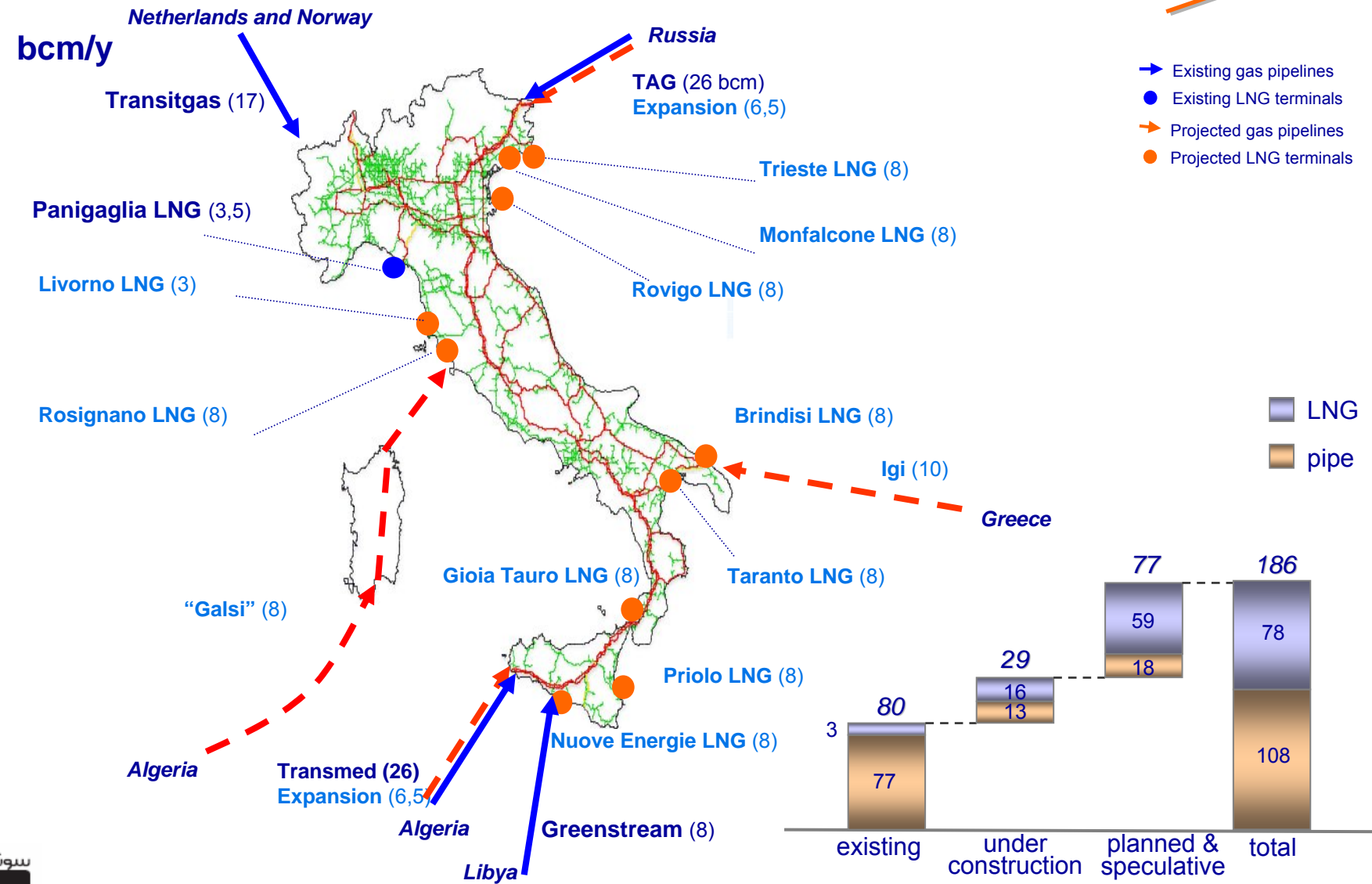
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**PRELIMINARY**



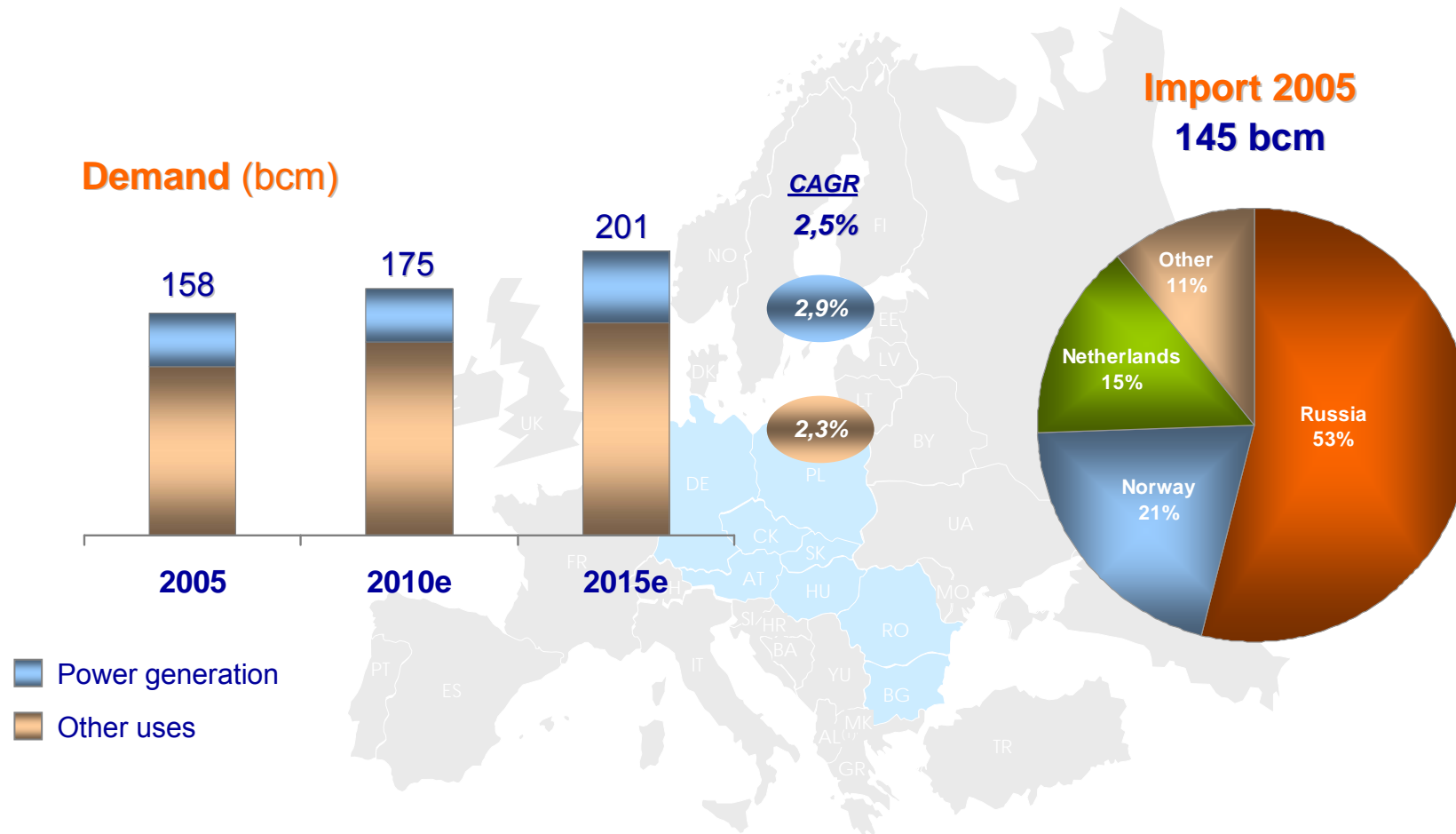
# Italian import capacity

**PRELIMINARY**



# Central & Eastern Europe natural gas demand

PRELIMINARY





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# Traditional structure of the gas sector in Europe

PRELIMINARY

	<i><b>Key features</b></i>	<i><b>Main constrains</b></i>
<ul style="list-style-type: none"><li>• <b>Player</b></li></ul>	<ul style="list-style-type: none"><li>• Mostly vertically integrated incumbents: importer(/ producer) and transporter</li></ul>	<ul style="list-style-type: none"><li>• Unfavorable and not transparent access terms for gas transport and storage</li></ul>
<ul style="list-style-type: none"><li>• <b>Infrastructure</b></li></ul>	<ul style="list-style-type: none"><li>• Developed and controlled by the vertically integrated incumbents</li></ul>	<ul style="list-style-type: none"><li>• Lack of flexibility (long term commitment)</li></ul>
<ul style="list-style-type: none"><li>• <b>Contracts</b></li></ul>	<ul style="list-style-type: none"><li>• Long term ToP</li><li>• Gas pricing formulas indexed on oil products</li></ul>	<ul style="list-style-type: none"><li>• Exposure to oil price volatility</li></ul>

# Deregulation policies and new infrastructure development

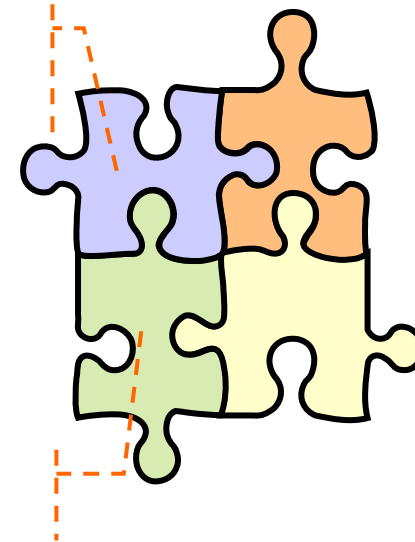
PRELIMINARY

## Main guidelines

- Unbundling of the vertically integrated incumbents
- Harmonization and improvement of grid access rules
  - Transparency
  - Non-discriminatory TPA
  - Efficiency

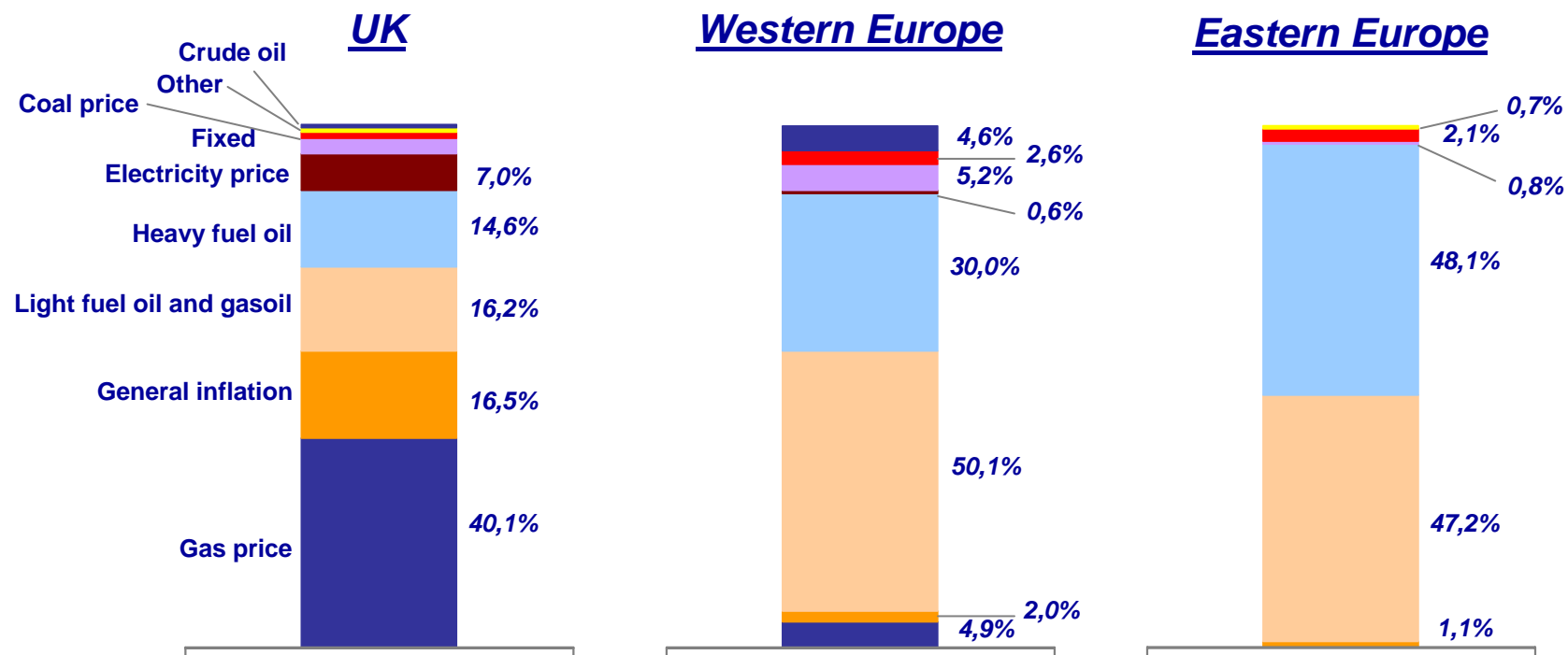
*However, new complex and expensive projects generally require...*

- *TPA exemption*
- *Long term firm commitment*



# Gas pricing schemes

PRELIMINARY



# Security of supply

PRELIMINARY

- High oil (and gas) price
- Geopolitical instability
- Demand from fast growing economies

## *Implication*

- Utilities fuel diversification strategy
- Government policies
  - Fuel mix restriction
  - Taxation
  - Import caps

## *Possible solution*

- Diversification of supply
- Build “security margins”
  - Back-ups/ recoveries in case of crisis
  - Additional flexibility

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# Gas players evolving role

PRELIMINARY

**NOCs going to market**

- Regassification terminal participation
- Pipeline development
- Marketing & trading

**Utilities going up- and midstream**

- LNG plants participation
- Natural gas fields development

**COOPERATION NOT COMPETITION!**

# Cooperative approach

PRELIMINARY

## *Benefits*

### *NOCs*

- Final markets access
- Support in the development of the domestic market
  - Gas & electricity distribution
  - Power generation
  - National system and grid

### *Utilities*

- Security of gas supply
- Long term competitiveness

**Mutually  
beneficial  
partnership  
based on  
complementary  
competences**



# GALSI: a new opportunity in the Mediterranean area

**PRELIMINARY**

- Capacity
  - Start-up
  - Capex estimate
  - Total length
  - Partners
  - **Benefits**
    - **Enel**
    - **Sonatrach**
- 8 bmc/year
  - 2H 2009
  - 2 bn USD
  - 910 km from Algeria to Tuscany
  - Sonatrach (36%), Edison (18%), Enel (13.5%), Wintershall (13.5%), Hera (9%), Sfers (5%), Progemisa (5%)
  - **Direct supply with own import infrastructure**
  - **Direct access to the Italian and European market**



# MEDGAZ

**PRELIMINARY**

- Capacity
  - Start-up
  - Capex estimate
  - Total length
  - Partners
- 8 bmc/year
  - 1H 2009
  - 1,2 bn USD
  - 210 km (offshore distance) from Algeria to Spain
  - Sonatrach (36%), Cepsa (20%), Iberdrola (20%), GdF (12%), Endesa (12%)



# Conclusion

PRELIMINARY

**NOCs**  
+  
**Utilities**

**A balanced partnership offers a  
unique opportunity  
for an effective development  
of the markets  
both in Europe and in North Africa**